Appl. No. 10/531,855
Amdt. dated October 13, 2009
Response to Office Action of April 13, 2009

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A recombinant human C1 inhibitor comprising a modified O-linked carbohydrate and having an extended plasma circulatory half-life compared to an unmodified C1 inhibitor, wherein the modified O-linked carbohydrate comprises a sialylated terminal galactose residue which is characterised in that its plasma circulatory half-life has been changed by modification of an O-linked carbohydrate, wherein the modification has been carried out by in vitro incubation with an enzyme preparation comprising one or more O-linked carbohydrate-modifying enzymes or in vivo by co-expression of the recombinant human C1 inhibitor with one or more recombinant O-linked carbohydrate-modifying enzymes in a cultured transgenic cell.

2-3.   (Canceled)

4.   (Currently Amended) The recombinant human C1 inhibitor according to claim 1, wherein which is characterised in that the plasma circulatory half-life of the modified inhibitor has decreased as compared to, or increased to at least 1.5, 2, 3 or 4 times the value of[[,]] the half-life of the unmodified inhibitor.

5.   (Canceled)

6.   (Currently Amended) The recombinant human C1 inhibitor according to claim 1[[5]], wherein the which is characterised in that the non-sialylated O-linked carbohydrate is galactose or Gal(β1-3)GalNAc.

7.   (Currently Amended) The method recombinant human C1 inhibitor according to claim 25[[1]], wherein the which is characterised in that the O-linked carbohydrate

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is modified by incubation with an ~~enzyme preparation which~~ comprises <u>sialyltransferase ST3Gal III</u>~~one or more O-linked carbohydrate modifying enzymes~~.

8.   (Currently Amended) The <u>method</u>~~recombinant human C1 inhibitor~~ according to claim <u>25</u>[[7]], <u>wherein</u>~~which is characterised in that~~ the enzyme preparation comprises <u>sialyltransferase ST3Gal I</u>~~one or more sialyltransferases, galactosidases or endo-acetyl-galactosaminidases~~.

9.   (Currently Amended) The <u>method</u>~~recombinant human C1 inhibitor~~ according to claim <u>25</u>[[8]], <u>wherein</u>~~which is characterised in that~~ the enzyme preparation comprises sialyltransferases ST3Gal III and ST3Gal I~~, or endo-α-N-acetyl-galactosaminidase~~.

10-12. (Canceled)

13.   (Previously Presented) A pharmaceutical composition comprising a human recombinant C1 inhibitor according to claim 1.

14-15. (Canceled)

16.   (Currently Amended) A method for extending the blood circulatory half-life of a glycoprotein or of a glycoprotein comprising compound, wherein the method comprises removing one or more non-sialylated O-linked carbohydrates <u>comprising a terminal galactose residue</u> from the glycoprotein by *in vitro* incubation with an enzyme preparation comprising one or more enzymes capable of removing the one or more non-sialylated O-linked carbohydrates<u>, wherein the blood circulatory half-life of the glycoprotein or glycoprotein comprising compound is extended compared to an unmodified glycoprotein or glycoprotein comprising compound</u>~~or in vivo by co-expression of a recombinant glycoprotein with one or more recombinant enzymes capable of removing the one or more non-sialylated O-linked carbohydrates of the recombinant glycoprotein in a cultured transgenic cell~~.

17.   (Previously Presented) The method according to claim 16, wherein the non-sialylated carbohydrate is galactose or Gal(β1-3)GalNAc.

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18.   (Canceled)

19.   (Currently Amended) The method according to claim 16[[18]], wherein the enzyme preparation comprises galactosidase or endo-acetylgalactosaminidase.

20.   (Currently Amended) The method according to claim 16[[18]], wherein the enzyme preparation comprises one or more recombinantly produced enzymes.

21.   (Canceled)

22.   (Previously Presented) The method according to claim 16, wherein the glycoprotein is a C1 inhibitor.

23.   (New) The method of claim 22, wherein the C1 inhibitor is recombinant human C1 inhibitor.

24.   (New) The method of claim 23, wherein the enzyme preparation comprises Endo-α-N-Acetylgalactosaminidase.

25.   (New) A method for extending the plasma circulatory half-life of a recombinant human C1 inhibitor, the method comprising modifying an O-linked carbohydrate of the C1 inhibitor by *in vitro* incubation of the C1 inhibitor with an enzyme preparation comprising at least one sialyltransferase capable of sialylating a terminal galactose residue, wherein the plasma circulatory half-life of the C1 inhibitor is extended compared to an unmodified inhibitor.

26.   (New) The method of claim 25, wherein the plasma circulatory half-life of the modified C1 inhibitor has increased to at least 1.5, 2, 3 or 4 times the value of the half-life of the unmodified inhibitor.

27.   (New) The method of claim 25, wherein the O-linked carbohydrate is galactose or Gal(β1-3)GalNAc.